

# **EXHIBIT N**

## C.A. 6:20-CV0-0979-ADA CLAIM CONSTRUCTION SUMMARY

Align Patent Claim Term	Construction <sup>1</sup>
<p>“depth data”            (’433 Patent, claims 1, 2, 12, 13, 16; ’519 Patent, claims 1, 6, 13, 21, 24; ’151 Patent, claims 1, 10, 18, 25; ’152 Patent, claims 1, 9, 16, 23)</p>	<p>The Parties have a disagreement regarding the construction for this term, which is being presented to the Court concurrently with this chart. The difference is highlighted below.</p> <p>3Shape’s Position:</p> <p>Depth data is construed according to its plain and ordinary meaning, except that depth data and color data must be <u>obtained</u> independently, but may be obtained simultaneously.</p> <p>Align’s Position:</p> <p>Depth data is construed according to its plain and ordinary meaning, except that depth data and color data must be <u>determined</u> independently, but may be obtained simultaneously.<sup>2</sup></p>
<p>“scanning system configured to provide depth data of [said]/[the] portion” (’519 Patent, claim 1)</p>	<p>No construction</p>
<p>“imaging system configured to provide [two-dimensional] color image data of [said]/[the] portion” (’519 Patent, claims 1, 13, 24)</p>	<p>Plain and ordinary meaning</p>
<p>“image gathering member to generate depth data of the structure portion” (’433 patent, claims 1, 12)</p>	<p>Not subject to §112 ¶6. Plain and ordinary meaning.</p>
<p>“color data [of the intraoral structure]” (’151 patent, claims 1, 18; ’152 patent, claims 1, 9, 16, 18, 23, 25)</p> <p>“color image data” (’519 patent, claims 1, 6, 13, 24; ’151 patent, claims 1, 10, 18, 25; ’152 patent, claims 9)</p>	<p>Plain and ordinary meaning</p>
<p>“two-dimensional image data” (’433 patent, claims 12, 13)</p> <p>“two-dimensional [first]/[second] image data” (’433 patent, claims 1, 2)</p>	<p>Plain and ordinary meaning</p>

<sup>1</sup> All constructions are from the Court’s Preliminary Constructions unless otherwise noted.

<sup>2</sup> 2021-08-20 Hr’g Tr. at 33:17-21.

“depth image data” (’151 Patent, claims 1, 10, 18, 25; ’152 Patent, claim 9)	Plain and ordinary meaning
“map the estimated image data to the depth data for the two-dimensional reference array” (’433 patent, claim 1)	Plain and ordinary meaning
“selectively map the image data to the depth data for the two-dimensional reference array based on the plurality of focal lengths and the depth data such that the resulting associated color of the structure portion is in focus relative to the structure portion for a plurality of distances in the depth direction” (’433 patent, claim 12)	Plain and ordinary meaning
“processor...configured to associate the depth data with the two-dimensional color image data” (’519 patent, claim 1)	Plain and ordinary meaning
“color-three dimensional numerical entity” (’151 Patent, claims 1, 10, 11, 18, 25; ’152 Patent, claims 1, 9, 23)	“numerical entity created by associating coordinates of color data to coordinates of depth data”
“illumination unit configured to transmit a first array of incident light along a path towards the three dimensional structure” (’519 patent, claims 1, 13, 24)	Not subject to §112 ¶6 and not indefinite. Plain and ordinary meaning.
“detector (configured) to measure intensity of each of a plurality of returned light” (’519 patent, claims 1, 4, 13, 24, 30)  “measure intensity” (’519 patent, claims 1, 30)  “returning light” (’151 patent, claims 10, 25)	Not indefinite; plain and ordinary meaning
“light beams” (’519 Patent, claims 20, 21)	“directional projections of light energy”
“incident light beams” (’151 Patent, claim 18)	“directional projections of light energy propagating along the optical axis illuminating an object”
“returned light beams” (’151 Patent, claim 13)	“light beams returned in response to the incident light beams on the three dimensional structure/dentition”
“focal plane” (’151 Patent, claims 1, 10, 18; ’152 Patent, claims 1, 16, 23)	“a position where one or more light beams from the optical system are focused”
“focusing optics” (’151 Patent, claims 1, 10, 18, 25; ’152 Patent, claims 1, 9, 16, 23)	Plain and ordinary meaning, which is “one or more optical components that focus light beams to one or more focal planes”
“two-dimensional reference array substantially orthogonal to a depth direction” (’433 Patent, claims 1, 12)	“array of points in an X-Y plane substantially 90 degrees to a depth direction”

“depth data corresponding to a plurality of data points defined on a plane substantially orthogonal to a depth direction” (’519 patent, claims 1, 13, 24)	“depth data corresponding to a plurality of points in an X-Y plane substantially 90 degrees to the depth direction”
“remove, from the displayed model, a removed surface portion of the model to be removed according to the user input” (’936 Patent, claims 1, 17)	Plain and ordinary meaning
“a physically changed portion of the patient’s intraoral cavity” (’936 Patent, claims 1, 9)	Plain and ordinary meaning
“accounting for changes in surface topology when [intraorally] scanning a patient’s teeth for a dental procedure” (’609 Patent, claims 1, 12, 23)	Plain and ordinary meaning
<p>“replace at least a portion of the removed surface portion of the model using at least a portion of the received second scan data” (’936 Patent, claim 1)</p> <p>“replacing at least a portion of the surface portion of the model to be replaced according to the user input using at least a portion of the second scan data” (’936 Patent, claim 9)</p> <p>“replace at least a portion of the removed surface portion of the model using at least a portion of the received second scan data” (’936 Patent, claim 17)</p>	“[register]/[registering] the [received] second scan data with a retained portion of the model after removing the scan data of the removed surface portion” <sup>3</sup>
<p>“updating the first model by modifying only at least a portion of the surface data” (’609 Patent, claim 1)</p> <p>“update the first model by modifying only at least a portion of the surface data” (’609 Patent, claim 12)</p> <p>“update the first model by modifying only at least a portion of the first surface portion” (’609 Patent, claim 23)</p>	“updating [update] the first model by modifying, within only the demarcated surface data representative of the first surface portion, at least a portion of the surface data”
“[receiving]/[receive] user input, via the displayed first model, demarcating the surface data representative of the first surface portion and the surface data representative of the	Plain and ordinary meaning

<sup>3</sup> Agreement of parties; 2021-08-23 Email from F. Teller to E. Pearson; 2021-08-20 Hr’g Tr. at 43:6-16.

second surface portion ('609 Patent, claims 1, 12)	
“[determining]/[determine] a missing portion of the 3D virtual model that are missing a portion of the intraoral structure of the patient” ('527 Patent, claims 1, 12)	“[determining]/[determine] a missing intraoral structure, or a portion thereof, in the 3D virtual model” <sup>4</sup>
“[generate]/[generating] second 3D data” ('527 Patent, claims 1, 12)	“[generate]/[generating] second 3D data in any manner, including scanning or based on the 3D virtual model” <sup>5</sup>
“confocal imaging techniques” ('519 patent, claims 4, 16, 27)	“imaging technique having illumination and detection paths with conjugate focal planes” <sup>6</sup>

<b>3Shape Patent Claim Term</b>	<b>Construction</b>
“correlation measure” ('815 Patent, claims 33, 40)	Plain and ordinary meaning
“motion sensors” ('815 patent, claims 1, 26, 27, 35, 36, 39, 40, 42, 43)	“sensors that detect motion” <sup>7</sup>
“multichromatic probe light for illumination of the object” ('711 Patent, claim 1)	Plain and ordinary meaning, which is “a probe light with more than one color, or more than one shade of color, at the same time that illuminates the object”
“image pixels/image sensor pixels” ('711 claims, throughout)	Not indefinite; “pixels on the image sensor”
“data processing system configured to derive surface geometry information for a first set of image pixels within a block of the image sensor pixels from a series of 2D images recorded by the color image sensor” ('711 Patent, claim 1)	Not subject to §112, ¶6, construed according to its plain and ordinary meaning. Surface geometry information does not have to be derived from at least one of the same 2D images as the surface color information.
“data processing system further configured to derive surface color information for a second set of image pixels within the block of the image sensor pixels from at least one 2D image recorded by the color image sensor” ('711 Patent, claim 1)	Not subject to §112, ¶6, construed according to its plain and ordinary meaning. Surface color information does not have to be derived from at least one of the same 2D images as the surface geometry information.
“low weight” ('711 Patent, claim 24)	Plain and ordinary meaning
“different from” ('711 patent, claim 1)	“not identical to” <sup>8</sup>

<sup>4</sup> Preliminary Constructions; agreement between parties.

<sup>5</sup> 2021-08-20 Hr'g Tr. at 52:13-19.

<sup>6</sup> Dkt. 139 at 2.

<sup>7</sup> Dkt. 139 at 12.

<sup>8</sup> Dkt. 139 at 12.

“block of the image sensor pixels” (’711 patent, claims 1, 9, 42)	“two or more adjacent pixels on the image sensor” <sup>9</sup>
“smaller than” (’711 patent, claim 4)	“smaller in number” <sup>10</sup>
“cariogenic region of the tooth” (’333 Patent, claims 1, 3, 20, 21, 38)	Plain and ordinary meaning
“a second light source” (’333 Patent, claims 1, 20, 21, 33, 38)	Plain and ordinary meaning
“the 3D intraoral scanner is configured such that at least one of the one or more image sensor(s) detects light at the second wavelength, thereby configured to record data for the cariogenic region of the tooth” (’333 patent, claims 1, 21)	Plain and ordinary meaning
“switching to remotely controlling the view outs the handheld device into a controller mode” (’221 patent, claim 39)	“switching to remotely controlling the view puts the handheld device into a controller mode” <sup>11</sup>

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<sup>9</sup> Dkt. 139 at 12.

<sup>10</sup> Dkt. 139 at 12.

<sup>11</sup> Dkt. 139 at 12.